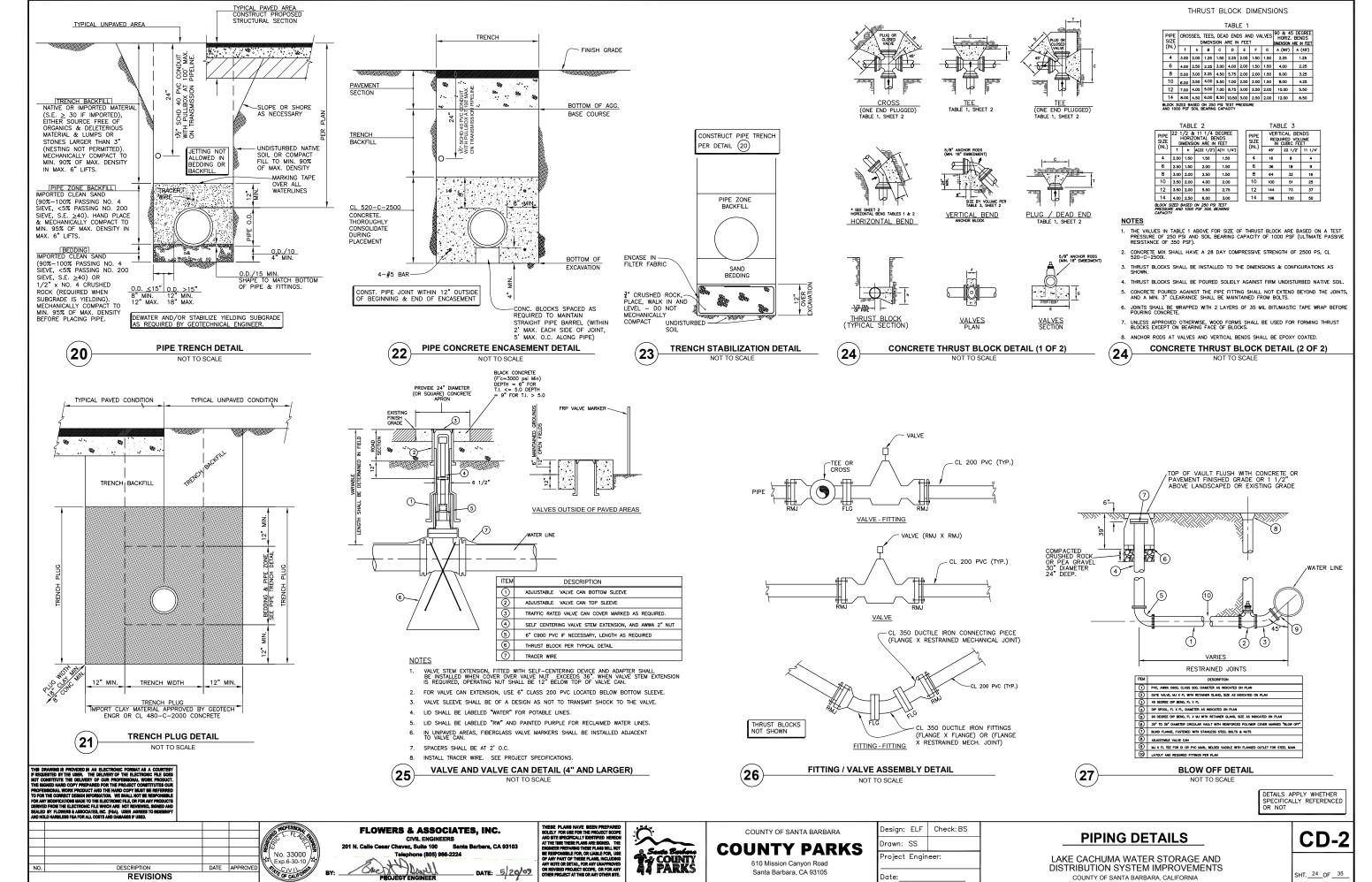
FINAL ENVIRONMENTAL ASSESSMENT
SANTA BARBARA COUNTY PARKS WATER SYSTEM UPGRADES AT LAKE CACHUMA CAMPGROUND Appendix A
Appendix A Preliminary Project Designs Set 1
June 2010

\\System41\Share\ShareCADD\ACADD\WG\0352Design\DWG\0352\_WSDS\_CD-1\_CD-4.dwg, CD-1 pdf, 5/20/2009 2:56:37 PM ssoria, Bluebeam PDF9 Printer HighRes.pc3, ANSL\_B\_(11.00\_x\_17.00\_Inches), 1:2:16055

W.O. 0352

PLOTTED: May 20, 2009 - 2:56pm

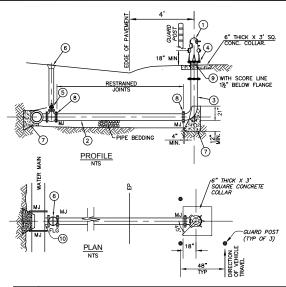
0352 WSDS\_CD-1\_CD-4.dwg



5/20/2009 2:54:02 PM

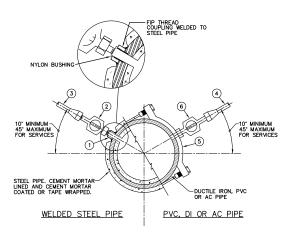
1\Share\ShareCADD\ACADDWG\0352Design\DWG\0352\_WSDS\_CD-1\_CD-4.dwg, CD-2 pdf, lebeam PDF9 Printer HighRes.pc3, ANSI\_B\_(11.00\_x\_17.00\_Inches), 1:2.16055

PLOTTED: May 20, 2009 - 2:54pm



ITEM	DESCRIPTION
0	WET BARREL BRONZE FIRE HYDRANT WITH BRONZE CAPS
2	6" DIAMETER DUCTILE IRON PIPE (8" WITH REDUCER AT BURY SHERE CALLED FOR ON
_	THE PLANS)
3	6" DUCTILE IRON BURY WITH 90" BEND MJ X FL, LENGTH AS REQUIRED (24" TYP)
4	HOLLOW BOLTS ON TOP FLANGE (TIPS DOWN)
(5)	TEE OR TAPPING SLEEVE WITH 6" FL X MJ GATE VALVE
6	ADJUSTABLE VALVE CAN
<b>O</b>	CONCRETE THRUST BLOCKS CONSTRUCTED WITH A MINIMUM 18 SF OF BEARING AREA
8	MECHANICAL JOINT WITH RETAINER GLAND
0	6" DUCTILE IRON FLANGED BREAK-OFF SPOOL WITH SCORE LINE, AND 6-HOLE BOLT
	10 PATTERN FOR TOP FLANGE, LENGTH AS REQUIRED (12" MIN)
10	TEE, LINE SIZE WITH 6" SIDE OUTLET

FIRE HYDRANT ASSEMBLY DETAIL (30)NOT TO SCALE

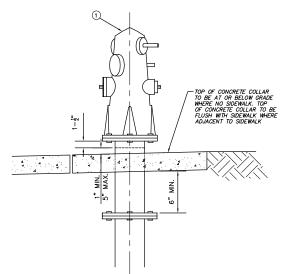


ITEM	DESCRIPTION
0	STANDARD STEEL COUPLING WITH FIP THREAD WELDED TO STEEL WATERLINE.
@	CORP. STOP WITH MIP THREAD INLET WITH NYLON BUSHING AND FLARED OUTLET. ALL THREADED JOINTS SHALL INCLUDE JOINT COMPOUND.
3	COPPER/BRASS CORP. STOP, VALVE, PIPE, NIPPLE OR FITTING
4	TYPE "K" SOFT COPPER TUBING.
<b>©</b>	BRONZE SERVICE SADDLE WITH FIP THREAD.
0	CORP. STOP WITH MIP THREADED INLET AND FLARED OUTLET. ALL THREAD JOINTS SHALL INCLUDE JOINT COMPOUND.

- SERVICE AND OTHER TAPS SHALL NOT BE MADE CLOSER THAN 2 FEET TO A BELL, COUPLING, JOINT, FITTING, OR OTHER SERVICE.
- 2. ANGLE OFFSET SERVICES WITHIN 15' OR LESS OF EACH OTHER SO THEY DO NOT ALIGN DOWN THE PIPE

## 2 1/2" AND SMALLER SERVICE CONNECTION NOT TO SCALE

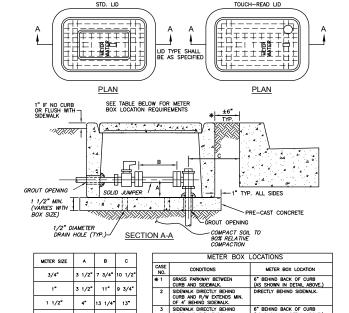
REVISIONS



### BREAK OFF SPOOL / CONCRETE COLLAR DETAIL

- FIRE HYDRANT SHALL BE J. JONES NO. 3765 WITH FACTORY PAINT, ONE COAT XIM POWER SEALER 400 AND TWO COATS AERO-PLATE #462 GLOW BRIGHT YELLOW
- 2. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH TYPICAL DETAIL.
- 4. IF HYDRANT IS NOT PROTECTED BY CURB, 3 GUARD POSTS SHALL BE PLACED TO PROTECT HYDRANT PER DETAIL.
- 5. FIRE HYDRANT SHALL BE INSTALLED PLUMB.
- 6. REQUIREMENTS. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF FIVE FEET CLEAR OF ABOVE AND BELOW GROUND OBSTRUCTIONS SUCH AS VAULTS, UTILITIES AND DRIVEWAYS, AND TEN FEET CLEAR OF TREES AND BUSHES.
- 7. BRONZE CAPS SHALL BE CHAINED TO HYDRANT AND SHALL HAVE 1/8" DIAMETER WEEP HOLE DRILLED ADJACENT TO OPERATING NUT.

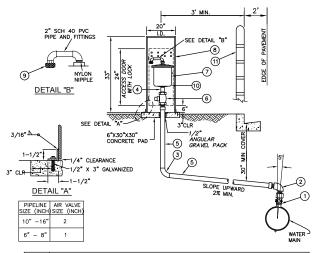
## FIRE HYDRANT INSTALLATION DETAIL (32)



## 1. METER BOX BASE SHALL BE PRE-CAST CONCRETE.

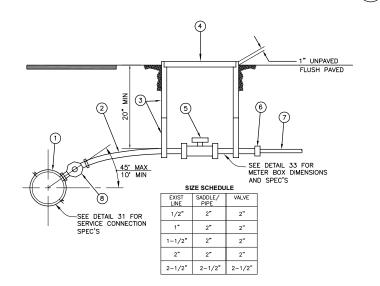
- 2. FOR BOXES IN AREA WHERE VEHICULAR TRAVEL IS ANTICIPATED, A TRAFFIC RATED LID (H-20) WITH READING LID SHALL BE USED.
- 3. ALL JOINTS BETWEEN BASE AND METER BOX AND OPENINGS AT METER BOX INLET & OUTLET SHALL BE MORTARED AS DIRECTED.
- TRAFFIC RATED COVERS WITH READING LID ARE REQUIRED WHERE ROLLED CURB AND/OR NO CURBS HAVE BEEN INSTALLED ALONG EDGE OF PAVEMENT. WHERE NO CURBS EXIST, THE METER BOX SHALL BE LOCATED 15" BEHIND EDGE OF PAVEMENT.
- METERS SHALL BE LOCATED A MINIMUM OF FIVE FEET CLEAR OF ABOVE AND BELOW GROUND OBSTRUCTIONS SUCH AS VAULTS, UTILITIES, AND DRIVEWAYS, AND TEN FEET CLEAR OF TREES AND BUSHES.

METER BOX FOR METERS UP TO 2" DETAIL (33)



ITEM	DESCRIPTION
1	SERVICE CONNECTION INSTALLED PER STD. DETAIL WITH FIP THREAD OUTLET CORP. STOP
2	2" BRASS 90 DEGREE ELBOW, MIP THREAD X FIP THREAD
3	2" COPPER 90 DEGREE ELBOW, SILVER SOLDERED
4	1 1/2" BRASS NIPPLE WITH 2" NYLON BUSHINGS
(5)	2" TYPE K SOFT COPPER TUBING WITH MIP ADAPTER, AND HARD COPPER RISER
6	2" BALL VALVE, FIP THREAD X FIP THREAD (WITH HANDLE)
0	2" COMBINATION AIR VALVE
8	20" ID, 10 GAUGE STEEL PIPE, FABRICATED COVER, GALVANIZED, AND PAINTED DARK GREEN
9	INSECT SCREEN
0	BLEED LINE: NYLON BUSHING, 1/4" BRASS NIPPLE, 1/4" BALL VALVE, AND 1/4" PLUG
0	IF NO CURB, CONSTRUCT 3 GUARD POSTS (SEE DETAIL 30 FOR LAYOUT)



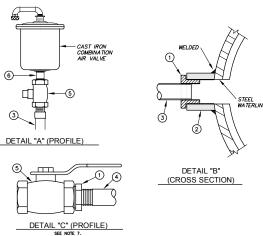


ITEM	DESCRIPTION
0	BRONZE SERVICE SADDLE WITH FIP (THREAD, 2-1/2" MAX.)
2	SCHEDULE 40 PVC PIPE (LINE SIZE OR 2" MIN.)
3	VALVE BOX WITH EXTENSIONS (11" X 17" MIN. CLR INSIDE) ACP E17 OR EQUIVALENT
4	BOLT DOWN GALVANIZED STEEL PLATE, TRAFFIC RATED, "WATER" ON LID.
(5)	LINE SIZE PVC TRUE UNION VALVE, 2" MIN.
6	CONNECT TO EXISTING LINE WITH FITTINGS AND REDUCERS AS REQUIRED. THREADED CAP AT FUTURE CONNECTION LOCATIONS.
0	EXISTING MINOR DISTRIBUTION LINE, 2-1/2" MAX.
8	CORP. STOP AND PIPE ADAPTOR

MINOR DISTRIBUTION LINE CONNECTION DETAIL (2-1/2" AND SMALLER)

COUNTY OF SANTA BARBARA

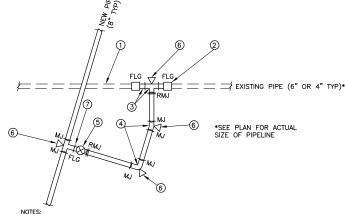
Design: ELF | Check: BS rawn: SS roject Engineer:



1	ITEM	DESCRIPTION
	1	NYLON BUSHING (1/2" REDUCTION, TYPICAL)
	2	EXTRA-HEAVY HALF COUPLING OR THREDOLET
	3	COPPER/BRASS CORP. STOP, VALVE, PIPE, NIPPLE OR FITTING
	4	GALVANIZED STEEL PIPE, NIPPLE OR FITTING
	⑤	BRASS CORP. STOP, VALVE OR FITTING
	6	SCHEDULE 80 PVC NIPPLE, THREADED

- NO DIRECT CONNECTION OF STEEL OR CAST IRON TO BRASS, BRONZE, OR COPPER SHALL BE MADE WITHOUT APPROVAL AND ISOLATORS.
- 2. ONLY NYLON BUSHINGS SHALL BE ALLOWED. PVC BUSHINGS ARE NOT ALLOWED
- 3. THREDOLETS AND EXTRA-HEAVY HALF COUPLINGS SHALL BE SIZED ONE-HALF INCH LARGER THAN BRASS, BRONZE, OR COPPER CONNECTION TO ALLOW FOR NYLON BUSHING.
- 4. WHERE EXTRA-HEAVY HALF COUPLINGS ARE USED, BASE OF COUPLING SHALL BE GROUND TO MATCH CURVATURE OF STEEL PIPE.
- DETAIL "C" APPLIES ONLY TO ABOVE GROUND INSTALLATIONS SUCH AS WELLS, BOOSTER STATIONS, AND PRESSURE REDUCING STATIONS.





- ① POTHOLE EXISTING PIPELINE TO CONFIRM LOCATION, PIPE TYPE, DIAMETER PRIOR TO CONSTRUCTION OR ORDERING PARTS
- ② CONNECT TO EXISTING PIPE WITH FLANGED COUPLING ADAPTER SIZED TO CONFORM TO NEW PIPE AND EXISTING PIPE. ADDITIONAL ADAPTORS SHALL BE PROVIDED AS REQUIRED TO CONNECT EXISTING PIPE.
- (3) CONNECT TO EXISTING PIPE WITH LINE SIZED TEE AND FLANGED NIPPLES. CONNECT TO EXISTING PIPE WITH LINE SIZED BEND AND FLANGED NIPPLE AT LOCATIONS WHERE A PORTION OF THE EXISTING PIPE IS BEING ABANDONED.
- $\begin{tabular}{lll} \hline $(4)$ & construct fittings as required to connect between New Pipe and Existing Pipe. Fittings shall be installed per construction details.$
- $\ensuremath{\mathfrak{S}}$  construct line sized valve and fitting per construction details.
- 6 CONSTRUCT THRUST BLOCKS PER TYPICAL DETAILS.

# **CONNECTION TO EXISTING** DISTRIBUTION PIPE DETAIL (4" AND LARGER)



PIPING DETAILS LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS

COUNTY OF SANTA BARBARA, CALIFORNIA

CD-3

PLOTTED: May 20, 2009 - 2:53pm

W.O. 0352

No. 33000

Exp.6-30-10

FLOWERS & ASSOCIATES, INC. CIVIL ENGINEERS DATE: 5/20/09

**COUNTY PARKS** 

610 Mission Canyon Road Santa Barbara, CA 93105

# LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS

AC	ASPHALTIC CONCRETE	LF	LINEAL FEET
ACP	ASBESTOS CEMENT PIPE	MH	MANHOLE
AB	AGGREGATE BASE	MJ	MECHANICAL JOINT
BC	BEGIN CURVE	NIC	NOT INCLUDED IN CONTRACT
BCR	BEGIN CURB RETURN	OC	ON CENTER
BD	BASEMENT DRAIN	OCEW	ON CENTER EACH WAY
BFV	BUTTERFLY VALVE	PCC	POINT OF COMPOUND CURVATURE
3M	BENCHMARK	PI	POINT OF INTERSECTION
BV	BALL VALVE		(OF CURVE TANGENTS)
BVC	BEGIN VERTICAL CURVE	PL OR P/L	PROPERTY LINE
BW	BACK OF WALK	PRC	POINT OF REVERSE CURVATURE
CIP	CAST IRON PIPE	PVC	POLY-VINYL CHLORIDE
CJ	CRACK CONTROL JOINT	PV	PLUG VALVE
CL	CLASS	R	RADIUS
& OR C/L	CENTERLINE	RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE	RD	ROOF DRAIN
CLR	CLEAR	RG	RETAINING GLAND
CMU	CONCRETE MASONRY UNIT	RSJ	ROUGH SURFACE JOINT
co	CLEANOUT	R/W	RIGHT-OF-WAY
CTV	CABLE TELEVISION	S	SEWER
DIP	DUCTILE IRON PIPE	SD	STORM DRAIN
D	DRAIN	SL	STREET LIGHT
E	ELECTRICAL	ST STL	STAINLESS STEEL
DI	DROP INLET	STA	STATION
EC	END CURVE	STD DTL	STANDARD DETAIL
ECR	END CURB RETURN	T	TELEPHONE
EG	EXISTING GRADE	TBLK	THRUST BLOCK
EJ	EXPANSION JOINT	TB	TOP OF BERM
EL	ELEVATION	TC	TOP OF CURB
EP	EDGE OF PAVEMENT	TCN	TOP OF CONCRETE
EVC	END VERTICAL CURVE	TD	TOP OF DIKE
EW	EACH WAY	TF	TOP OF FOOTING
EX	EXISTING	TG	TOP OF GRATE
FD	FLOOR DRAIN	TI	TRAFFIC INDEX
FF	FINISH FLOOR	Τİ	TRAFFIC LIGHT
FG	FINISH GRADE	TP	TOP OF PAVEMENT
FH	FIRE HYDRANT	TYP	TYPICAL
FL OR FL	FLOWLINE	TW	TOP OF WALL
FLG	FLANGE	VCP	VITRIFIED CLAY PIPE
FS	FINISH SURFACE	VPI	VERTICAL POINT OF INTERSECTION
G	GAS		(OF VERTICAL CURVE TANGENTS)
GB	GRADE BREAK	W	WATER
GM	GAS METER	W/	WITH
GSP	GALVANIZED STEEL PIPE	WD	WALL DRAIN
GSV	GAS VALVE	WM	WATER METER
GV	GATE VALVE	WV	WATER VALVE
HB	HOSE BIB	Δ	DELTA (CURVE CENTRAL ANGLE)
HP	HIGH POINT	±	APPROXIMATELY
INV	INVERT	%	PERCENT
L.	CURVE LENGTH	<	LESS THAN
		>	GREATER THAN

DESCRIPTION	EXISTING	PROPOSED
CENTERLINE		
EDGE OF A.C. PAVEMENT	<u> </u>	
ELEVATION	100.00 OR (100.00)	100.00
CONCRETE PAVEMENT	5888505555	A44500000000
A.C. PAVEMENT		
PROPERTY LINE		
EASEMENT LINE		
CONTOURS (MAJOR)	— — 10 — —	10
CONTOURS (MINOR)	— — 12 — —	12
BENCH MARK	•	
TREE CANOPY	$\sim$	$ \sim $
SAW CUT LINE		
LIMIT OF GRADING LINE		
GRADE BREAK LINE		GB
FLOW LINE		
SLOPE LINE		
FENCE		
RETAINING WALL		
WATER	w	w
SEWER	s	s
STORM DRAIN	SD	sd
POWER	E	—— Е ——
GAS	G	—— 2 —— G —— 4 —
TELEPHONE	T	T
CABLE TV	CTV	CTV
MANHOLE		OMH
CLEANOUT	O <sup>CO</sup>	oco
WATER METER & LATERAL	w	— w —— ¬
FIRE HYDRANT	-⊗}>	-⊗
THRUST BLOCK	_₽`	<b>⊸</b> ₹
FITTING	— <del>]</del> ×	— <del>]</del> -X
STREET LIGHT	'n	ά

### **ESTIMATED EARTHWORK QUANTITIES:**

# RESERVOIR NO. 2 AREA

EXCAVATION: 3,500 CUBIC YARDS EMBANKMENT: 3,500 CUBIC YARDS

FACTORS AND LOSSES DUE TO CLEARING AND DEMOLITION OPERATIONS ARE NOT INCLUDED. ESTIMATED EARTHWORK DIFFERENCE BETWEEN EXISTING GRADES AND PROPOSED INISH GRADES OR PAVEMENT SUBGRADES, AS INDICATED ON THE PLANS, AND SHOULD VARY ACCORDING TO THESE

CONTRACTOR SHALL ACCEPT OR CONFIRM EXISTING TOPOGRAPHIC INFORMATION, SHALL REVIEW THE SITE AND THE GEOTECHNICAL REPORT(S) AND MAKE HIS OWN INTERPRETATIONS AND CONCLUSIONS WITH RESPECT THERETO, AND SHALL PERFORM AN INDEPENDENT EARTHWORK ESTIMATE ON WHICH TO BASE HIS BID. ONCE GRADING IS STARTED, THE TOPOGRAPHIC INFORMATION HAS BEEN ACCEPTED BY CONTRACTOR.

# **UTILITY & SUBSTRUCTURE INFORMATION:**

FLOWERS & ASSOCIATES HAS PERFORMED A SEARCH OF UTILITY AND SUBSTRUCTURE LOCATIONS BY CONTACTING THE OWNERS (LISTED BELOW) AND REQUESTING RECORD INFORMATION. INFORMATION RECEIVED HAS BEEN TRANSFERRED TO OUR DRAWINGS FROM THE SOURCE DOCUMENTS PROVIDED (TYPICALLY ATLAS SHEETS AND RECORD DRAWINGS). NO FURTHER RESEARCH OR PHYSICAL EXPLORATION (TYPICALLY A LLAS SHEETS AND RECORD DRAWINGS). NO FURTHER RESEARCH OR PHYSICAL EXPLORA OR CONFIRMATION OF ACCURACY OF THE INFORMATION RECEIVED AND PLACED ON OUR DRAWINGS HABEEN PERFORMED AND FLOWERS & ASSOCIATES DOES NOT WARRANTY THE COMPLETENESS OR ACCURACY OF THIS INFORMATION. THIS INFORMATION IS PLACED ON THE DRAWINGS FOR THE SOLE PURPOSE OF AIDING IN DESIGN OF PROPOSED IMPROVEMENTS AND IS NOT INTENDED FOR ANY OTHER URSE. USERS IT HESE PLANS SHALL NOT RELY ON THE COMPLETENESS OR ACCURACY OF UTILITY AND SUBSTRUCTUR INFORMATION PRESENTED HEREON AND DO SO AT THEIR SOLE FIXED.

IN ONWATION PRESENTED HEREON AND DO SO AT THEIR SOLE RISK.				님
COMPANY	CONTACT	PHONE	유지	
P. G. & E.	BARBARA ZINAKORGIAN	(805) 346-2230		Х
THE GAS COMPANY	KARL MONTELEON	(818) 701-3262		Х
THE GAS COMPANY TRANSMISSION	ROSALYN SQUIRES	(818) 701-4546	Х	
VERIZON	VICKY ANGEL	(805) 966-0434	Х	
COX CABLE OF SANTA BARBARA	DOUG SCHWARZBERG	(805) 681-3841	Х	
COUNTY OF SANTA BARBARA ROADS DEPT	WALTER RUBALCAVA	(805) 568-3047	Х	
COUNTY OF SANTA BARBARA PARKS DEPT	MITCH MEDEIROS	(805) 686-5076	Х	
*CONTACT DID NOT DDOV/DC INCODMATION COD DDAWINGS				

## IMPORTANT NOTICE

ALL UTILITY LOCATIONS ARE APPROXIMATE CONTRACTOR IS TO NOTIFY UNDERGROUND SERVICE ALERT TWO WORKING DAYS PRIOR TO STARTING ANY EXCAVATION OR RESUR

REVISIONS

# FLOWERS & ASSOCIATES, INC.





Design: ELF	Check: BS	
Drawn: SS		
Project Engineer:		

LAKE CACHUMA WATER STORAGE AND COUNTY OF SANTA BARBARA, CALIFORNIA

**G-1** 

DISTRIBUTION SYSTEM IMPROVEMENTS

No. 33000

IAS URACY : : OF RE	RESPONDED, INFORMATION PLOTTED ON F	DID NOT RESP PLOTTED ON F	
		X	
		Х	
	X		
	Х		
	X		
	X		

G-3 OVERALL SITE PLAN & REFERENCE TO DRAWINGS

SHEET INDEX:

RESERVOIR NO. 2 SITE GRADING, PAVING AND DRAINAGE PLAN RESERVOIR NO. 2 LAYOUT AND SECTIONS RESERVOIR NO. 2 SECTIONS R-4 EXISTING RESERVOIR NO. 1 PIPING MODIFICATIONS PLAN

T-1 TRANSMISSION PIPELINE PLAN AND PROFILE 
TITLE SHEET G-2 GENERAL PROJECT INFORMATION

VICINITY MAP

BORING UNDER HWY 154 PLAN MILEPOST 14.7, PROFILE AND DETAILS TRANSMISSION PIPELINE PLAN AND PROFILE

FIRE SYSTEM / LOOPING PLAN AND PROFILE FIRE SYSTEM / LOOPING PLAN AND PROFILE

FIRE SYSTEM / LOOPING PLAN AND PROFILE FIRE SYSTEM / LOOPING PLAN AND PROFILE FIRE SYSTEM / LOOPING PLAN AND PROFILE P-6 FIRE SYSTEM / LOOPING PLAN AND PROFILE CD-1 SITE DETAILS

CD-2 PIPING DETAILS CD-3 PIPING DETAILS SP-1 STORM WATER POLLUTION PREVENTION DETAILS

SP-2 STORM WATER POLLUTION PREVENTION DETAILS SP-3 STORM WATER POLLUTION PREVENTION PLAN

S-1.1 STRUCTURAL GENERAL NOTES S-1.2 STRUCTURAL TYPICAL DETAILS AND SCHEDULES S-2.1 STRUCTURAL WATER TANK FOUNDATION PLAN

S-4.3 STRUCTURAL DETAILS AND SECTIONS

S-3.1 FOUNDATION AND ROOF FRAMING PLAN S-4.1 STRUCTURAL DETAILS AND SECTIONS S-4.2 STRUCTURAL DETAILS AND SECTIONS

**TITLE SHEET** 

#### **USE OF PLANS**

THIS DRAWING IS PROVIDED IN AN ELECTRONIC FORMAT (ON COMPLITER DISK) AS A COLIRTESY IF REQUESTED BY THE LISER. THE THIS DRAWNING IS PROVIDED IN AN ELECTRONIC PORMAT (ON COMPUTER DISK) AS A COURTEST IF REQUESTED BY THE USER. THE DELIVERY OF THE ELECTRONIC FILE DOES NOT CONSTITUTE THE DELIVERY OF OUR PROFESSIONAL WORK PRODUCT. THE SIGNED HARD COPY PREPARED FOR THE PROJECT CONSTITUTES OUR PROFESSIONAL WORK PRODUCT AND THE HARD COPY MUST BE REFERRED TO FOR THE CORRECT DESIGN INFORMATION. THESE PLANS HAVE BEEN PREPARED SOLELY FOR USE FOR THE PROJECT SCOPE AND SITE SPECIFICALLY IDENTIFIED HEREON AT THE TIME THESE PLANS ARE SIGNED. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, USE OF ANY PART OF THESE PLANS, INCLUDING ANY NOTE OR DETAIL, FOR ANY UNAPPROVED OR REVISED PROJECT SCOPE. OR FOR ANY OTHER PROJECT AT THIS OR ANY OTHER SITE. USER AGREES TO INDEMNIFY AND HOLD. HARMLESS F&A FOR ALL COSTS AND DAMAGES IF USED.

#### USE OF ELECTRONIC INFORMATION

ELECTRONIC INFORMATION MAY BE PROVIDED BY THE ENGINEER FOR CONVENIENCE; UNDER NO CIRCUMSTANCES SHALL DELIVERY OF ELECTRONIC FILES FOR USE BY OTHERS BE DEEMED A SALE BY THE ENGINEER AND THE ENGINEER MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT SHALL THE ENGINEER BE LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES AS A RESULT OF THE USE OR REUSE OF THE ELECTRONIC FILES BY OTHERS

ELECTRONIC INFORMATION IS INTENDED TO PROVIDE INFORMATION SUPPLEMENTAL AND SUBORDINATE TO THE CONSTRUCTION ELECTRONIC INFORMATION IS INTENDED TO PROVIDE INFORMATION SUPPLEMENTAL AND SUBDORDINATE TO THE CONSTRUCTION CONTRACT DOCUMENTS. LAYOUT AND CONSTRUCTION OF PROJECT ELEMENTS SHALL BE BASED ON DIMENSIONS AND INFORMATION INCLUDED ON THE SIGNED AND SEALED CONSTRUCTION CONTRACT DOCUMENTS WHICH SHALL CONTROL OVER ELECTRONIC INFORMATION. USER IS RESPONSIBLE FOR CONFIRMING LOCATION OF PROPOSED IMPROVEMENTS BASED ON DIMENSIONS AND INFORMATION INCLUDED ON THE CONSTRUCTION CONTRACT DOCUMENTS; INCONSISTENCIES BETWEEN THE ELECTRONIC INFORMATION AND THE CONSTRUCTION CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR

PROJECT ELEMENTS SUCH AS MANHOLES, CATCH RASINS, LITH ITY VALUETS, VALVE ASSEMBLIES, STAIRS, RAMPS, WALLS, ETC, ARE PROJECT ELEMENTS SOUCH AS MANHOLES, CALTOH BASINS, DILLIT Y AULT, SALEY ASSEMBLES, STAIRS, ANAMYS, WALLS, ETC. ARE SHOWN SCHEMATICALLY IN THE ELECTRONIC INFORMATION AND CONSTRUCTION OF THESE ELEMENTS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION NOTES AND DETAILS PRESENTED OR REFERENCED IN THE SIGNED AND SEALED CONSTRUCTION CONTACT DOCUMENTS, IMPROVEMENTS CONSTRUCTED BASED ON ELECTRONIC INFORMATION AND IN CONFLICT WITH THE DRAWING DIMENSIONS DETAILS, AND THE CONSTRUCTION CONTRACT DOCUMENTS SHALL BE REMOVED AND CONSTRUCTED IN THE PROPER LOCATION AND

DIGITAL DRAWINGS ARE TYPICALLY A COMPILATION OF DRAWINGS FROM A NUMBER OF SOURCES AND. AS SUCH, THERE IS INFORMATION IN THE ELECTRONIC FILE ISSUED BY THE ENGINEER THAT WAS NOT DEVELOPED BY THE ENGINEER AND IS NOT AUTHORIZED BY THE IN THE ELECTROVICE THE ISSUED BY THE EMPIREER THAT WAS NOT DEVELOPED BY THE ENGINEER AND IS NOT ACTIONALED BY THE ENGINEER FOR USE BY OTHERS. ELECTRONIC INFORMATION PROVIDED BY THE ENGINEER SHALL ONLY BE APPLICABLE FOR IMPROVEMENTS DESIGNED BY THE ENGINEER AND WHICH ARE SPECIFICALLY DESIGNATED BY CONSTRUCTION NOTES AND/OR DETAILS ON THE SIGNED AND SEALED CONTRACT DOCUMENTS.

F DIGITAL FILES ARE OBTAINED WITH THE INTENT TO USE THEM FOR PROJECT STAKING, THEY SHALL ONLY BE USED BY A QUALIFIED ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA. DIGITAL INFORMATION SHALL ONLY BE USED FOR STAKING HORIZONTAL LOCATION OF PROPOSED IMPROVEMENTS AFTER IT HAS BEEN CONFIRMED WITH THE SIGNED AND SEALED CONSTRUCTION CONTRACT DOCUMENTS

THE DIGITAL DRAWINGS ARE NOT INTENDED TO BE USED DIRECTLY FOR CONTROL OF CONTRACTOR'S GRADING OPERATIONS WITHOUT STAKING BY ENGINEER OR LAND SURVEYOR. THE INTERSECTION OF PROPOSED CUT AND FILL SLOPES WITH EXISTING GRADE IS APPROXIMATE WHERE SHOWN ON THE DRAWINGS AND SHALL BE CONFIRMED BY FIELD STAKING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT SLOPES IN CONFORMANCE WITH THE SPECIFIED AND DETAILED REQUIREMENTS CONTAINED IN THE CONTRACT DOCUMENTS.

#### INITIAL AND LOCAL BENCHMARK:

FOUND PANEL NO. 8 SHOWN ON PAGE 11 OF 16: ELEVATION 811.2' FOUND PANEL NO. 5 SHOWN ON PAGE 6 OF 16: ELEVATION 752.3' EAST

FOUND PANEL NO. 8 SHOWN ON PAGE 11 OF 16: ELEVATION 811.2" FOUND PANEL NO. 5 SHOWN ON PAGE 6 OF 16: ELEVATION 752.3" E/OF EASTELY WALL SHOWN ON PAGE 12 OF 16: ELEVATION = 757.0" HORIZONTAL COORDINATE BASIS AND VERTICAL ELEVATION PROVIDED BY FLOWERS & ASSOCIATES PER PACIFIC WESTERN AERIAL SURVEYS MAP 1 OF 16 DATED MARCH 11, 1993: ELEVATION: 755.30" AT CONTROL POINT NO. 1

CAUTION! CONFIRM BENCHMARK DATA AND CONDITION WITH PROJECT SURVEYOR CARDENAS AND ASSOCIATES, INC. PRIOR TO USE,

#### BASIS OF BEARING:

BEARINGS AND DISTANCES PLOTTED PER BEST FIT FEATURES SHOWN ON PAGES 6, 11 & 12 OF 16 ON THE AERIAL MAPPING OF LAKE

HIGHWAY 154 RIGHT OF WAY PER CAL TRANS RIGHT OF WAY MAP POST MILE 14.7 ROTATED 0°03'19" CLOCKWISE.

## TOPOGRAPHY:

EXISTING TOPOGRAPHY COMPILED BY WATERS LAND SURVEYING BASED ON AERIAL MAPPING OF LAKE CACHUMA DATED MARCH 11, 1993. SUPPLEMENTED BY FIELD SURVEYS BY CARDENAS AND ASSOCIATES SURVEYING. INC. AUGUST 23, 2007

## **CONTROL POINTS:**

CP #1	72106.8813, 35838.5266, 920.9628, CP 1/2RB+FLAG)	CP #33	72299.3717, 40656.3440, 772.4934, CP/PK	
CP #2	72040.4700, 36019.9664, 904.2936, CP 1/2RB+FLAG	CP #34	72618.7332, 40853.8536, 755.9270, CP/1X2	
CP #3	72073.2401, 35811.2945, 919.7622, CP CHS X CONC	CP #1001	72556.8921, 40962.4040, 755.3000, CP PARKS	
CP #4	71978.2811, 35895.0571, 919.0228, CP CHS X CONC	CP #1002	72516.0209, 40156.5661, 774.1000, CP PARKS	
CP #5	71953.2306, 35890.7473, 918.8851, CP SPK+WHSKR	CP #1003	72512.3359, 38621.5669, 760.4000, CP PARKS 1045	į
CP #6	72018.9567, 35747.8141, 919.7080, CP SPK+WHSKR	CP #1004	72282.0191, 38631.3480, 766.5000, CP PARKS	
CP #7	71877.7953, 36021.8216, 900.7101, CP SPK+WHSKR	CP #1005	71704.2661, 38717.7861, 752.3000, CP PARKS	
CP #8	71857.2536, 36096.0534, 886.0627, CP 1X2+TACK	CP #1006	71912.4420, 36971.3981, 811.2000, CP PARKS 8	
CP #9	71884.1093, 36144.6951, 879.5052, CP 1X2+TACK	CP #1007	71891.0110, 36698.2723, 808.4000, CP PARKS 2051	
CP #10	71869.6821, 36273.9915, 849.5503, CP 1X2+TACK	CP #1008	72690.0620, 36857.8541, 827.1000, CP PARKS 2053	J
CP #11	71871.7035, 36336.7680, 849.3881, CP 1X2+TACK	CP #1009	72139.8618, 36957.6300, 812.8000, CP PARKS 1025	į
CP #12	71898.9071, 36448.4201, 839.0670, CP 1X2+TACK	CP #1010	72512.3255, 38622.1282, 760.4034, CP/PK 3	
CP #13	71867.9085, 36542.7048, 813.3342, CP 1X2+TACK	CP #2908	72556.9695, 40961.9222, 755.4638, CP1001	
CP #14	71922.9038, 35844.8958, 917.5457, CP SPK+WSKR	CP #2909	72281.9912, 38631.2225, 766.5680, CP 4 PRK LOT 1	
CP #17	72499.8768, 40566.4334, 771.4910, CP/PK 2	CP #2910	71912.4420, 36971.3981, 811.2000, CP PK CL RD 10	
CP #18	72282.0505, 38631.6989, 766.3684, CP CK	CP #2911	71239.5558, 36710.8156, 761.7691, CP PK AC BERN	1 N
CP #19	72512.3435, 38622.1086, 760.5237, CP CK	CP #2912	71177.2710, 36794.3149, 761.2910, CP REBAR	
CP #20	71912.5017, 36971.9417, 810.9906, CP CK	CP #2913	71179.0264, 36640.1202, 744.0937, CP 1X2	
CP #21	72106.8813, 35838.5266, 920.9628, CP 1 RES			
CP #22	72018.9071, 35747.8104, 919.6855, CP 6 RES	CP # 63 (WLS 0		
CP #23	71953.1727, 35890.6789, 918.9100, CP 5 RES	CP # 64 (WLS 0		
CP #24	72040.3923, 36019.8460, 904.2994, CP 2 RES	CP # 97 (WLS 0		
CP #25	71877.7535, 36021.6587, 900.6785, CP 7 RES	CP # 65 (WLS 0		
CP #26	71867.9827, 36542.4860, 813.3198, CP RES		CP #124) 72053.8069,38638.3130,759.1900,MAG.CP	
CP #31	72363.1060, 40483.1936, 773.7300, CP/PK		CP #288) 71768.5642,36778.4574,799.4400,SPK.CP	
CP #32	72499.8846, 40566.3442, 771.5230, CP/PK	CP # 68 (WLS 0	CP #290) 71782.9903,36852.6388,798.1800,MAG.CP	

# SURVEY MONUMENT PROTECTION:

DESCRIPTION

REVISIONS

PROTECT AND PRESERVE, IN PLACE, ALL SURVEY MONUMENTS AND BENCHMARKS. DO NOT DISTURB, MOVE, OR RELOCATE MONUMENTS OR BENCHMARKS WITHOUT THE PRIOR REVIEW AND APPROVAL BY THE AGENCY HAVING JURISDICTION OVER THE MONUMENT OR BENCHMARK. THE CONTRACTOR SHALL CONTRACT WITH A LICENSED SURVEYOR FOR MONUMENTS REQUIRING DISTURBANCE OR REMOVAL, AND THE SURVEYOR SHALK RESET THE MONUMENTS OR PROVIDE PERMANENT WITHESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR PURSUANT TO BUSINESS AND PROFESSIONAL CODE SECTION 8771.

No. 33000

Exp.6-30-10

			PIPING	SCHEDULE			
Service	Nominal Diameter (inches)	Materials	Joints/Fittings	Test Pressure/Method	Lining	Coating	Comments
Transmission	& Distribution	Pining					
Transmission Line	8"	CL 200 PVC	Push-on / MJ DI Fittings	150 psig/HH	Epoxy for DI Fittings	HDPE Sleeve Encasement for DI	See details for fitting/fitting and fitting/valve
Loops	6" & 8"	CL 200 PVC	Push-on / MJ DI Fittings	150 psig/HH	Epoxy for DI Fittings	HDPE Sleeve Encasement for DI	See details for fitting/fitting and fitting/valve
Connections Below Grade	4" and Larger	CL 200 PVC	Push-on / MJ DI Fittings	150 psig/HH	Epoxy for DI Fittings	HDPE Sleeve Encasement for DI	See details for fitting/fitting and fitting/valve
Connections Below Grade	3" and Smaller	Schd 80 PVC	Schd 80 PVC Solvent Weld	150 psig/HH	None	None	
Fire Service	6" & 8"	CL 350 DIP CL 200 PVC	Push-on / MJ DI Fittings	150 psig/HH	Epoxy for DI Fittings	HDPE Sleeve Encasement for DI	DIP for 50' or less, > 50' PVC
Sewer Forcemain	All	SDR 11 HDPE	Butt Fusion Welded	125 psig/HH	None	None	
Reservoirs							
Inlet/Outlet Piping Below Grade	8"	CL 200 PVC	Push-on / MJ DI Fittings	150 psig/HH	Epoxy for DI Fittings	HDPE Sleeve Encasement for DI	See details for fitting/fitting and fitting/valve
Inlet/Outlet Piping Above Grade	8"	CL 53 DIP or welded Steel	FLG DI Fittings	150 psig/HH	Epoxy for DI Fittings & Pipe	Painted	
In Res. No. 1 (as called for)	6"	Schd 80 PVC	Schd 80 PVC Solvent Weld/ FLG at CV	20 psig/HH	None	None	
In Res. No. 1 (as called for)	6"	CL 53 DIP	FLG DI Fittings	20 psig/HH	Epoxy for DI Fittings & Pipe	Epoxy for DI Fittings & Pipe	
Res. No. 1 Piping Below Grade	6"	CL 350 DIP	FLG DI Fittings	100 psig/HH	Epoxy for DI Fittings & Pipe	Epoxy for DI Fittings & Pipe	Modifications to existing piping
Res. No. 1 Drain	6"	SDR 11 HDPE	Butt Fusion Welded / FLG	100 psig/HH	None	None	
Water Service Above Grade	2"	Hard Copper	Threaded or Soldered	100 psig/HH	None	None	
Water Service Below Grade	2"	Schd 40 PVC	Schd 80 PVC Solvent Weld	100 psig/HH	None	None	

- All exposed piping shall be painted and/or coated in accordance with the specifications.
- All DIP fittings shall be epoxy lined.

  All miscellaneous pipe and connections for appurtenant work shall be as called for on the details and as specified.

## PIPING SCHEDULE LEGEND:

### TEST METHOD:

- AM = AIR METHOD
- GRAVITY METHOD
- HIGH HEAD METHOD LOW HEAD METHOD
- SPECIAL CASE

- ABBREVIATIONS TO DESIGNATE PIPING: CLASS, FOLLOWED BY THE DESIGNATION
- CEMENT MORTAR
- DUCTILE IRON PIPING
- FLG = FLANGED JOINT
  GA = GAUGE, PRECEDED BY THE DESIGNATION
- GE = GROOVED END JOINT
- NOMINAL PIPE SIZE, FOLLOWED BY THE NUMBER IN INCHES, POUNDS PER SQUARE INCH, OR
- POUNDS PER SQUARE INCH, GAUGE.
- POLYVINYL CHLORIDE SCH = SCHEDULE, FOLLOWED BY THE DESIGNATION
- SS = STAINLESS STEEL

- VCP = VITRIFIED CLAY PIPING

# Project Design Criteria

Item	Existing	Proposed	Comments
Lake Water Level			
Max.	750 ft	753 ft	NAVD '29
Min.	650 ft	650ft	
Raw Water Pump	1	1	Recommend 1 ready
Number of pumps	450 gpm	370 gpm	install standby pump,
Flow Rate	135 ft H2O	26 - 126 ft H2O (static)	or variable speed
Head	30 HP	30 HP	depending on membr
Power			selected
Filtration system	Pressure Granular	MF Membrane	DHS granted 4-log re
Design Flow Rate	440 gpm	370 gpm	of Giardia and Crypto
			0.5-log virus
Backwash Pumps	_	_	Backwash for 2 minur
Number of pumps	2	2	every 1/2 hour
Flow Rate	400 – 450 gpm	475 gpm	
Head	ft H2O	40 ft H2O 10 HP	
Power			
Disinfection Requirements	Onsite hypochlorite	Onsite hypochlorite	
	generation	generation	
DHS Multi-Barrier Inactivation	N/A	0.5 lan Ciamlia	
DIO MUILI-DAFFIET INACTIVATION	NA	0.5-log Giardia 2-log virus	
		2-log virus	
Design Temperature - pH	Unknown	10C - pH 8.0	
Backwash Storage			
Number/Type	1/steel	1/HDPE	
Size	20,000 gal	500 gal	
Chlorine Contact Tanks			Baffled steel tanks
Number/Type	2/steel	2/steel, baffled	
Size	10,000 gal	10,000 gal	efficiency. Tanks are
			interconnected by a p
Free Chlorine Contact Time		27 mg/l - min	for 0.5 log Giardia, 1r
Distribution Pump			
Number of pumps		2	
Flow Rate	275 gpm	350 gpm	
Head	205 ft H2O	164 ft H2O (static)	
Power	20 HP	30 HP	
Distribution Transmission Pipe	6 in		8 inch diameter is
Size	6 in	8 in	minimum recommend
Storage Reservoir			pipe size
	ma ana	200 000	Existing 200,000 gal
Size Type	200,000 gal concrete	200,000 gal steel	concrete reservoir to
Waste Stream Storage	concrete	steei	remain, total 4000,00
Size Stream Storage	N/A, Discharge to Lake	1,200 gal	
Waste Stream Pumps	. e. c Diodialge to Lake	1,200 gai	20 gpm based on 4" i
Number of pumps	N/A	2	@ 1% slope and = 1/
Flow Rate	147	20 apm	
Head		20 ft H2O	supusity, incu specu
			l .

#### **GENERAL NOTES:**

- ALL PIPE CROSSINGS SHOWN ON THE PLANS OR AS A RESULT OF FIFLD MARKING. SHALL BE POTHOLED, WEATHER OR NOT SHOWN AN THE DRAWINGS. POTHOLING SHALL BE PERFORMED PRIOR TO ORDERING ANY MATERIALS.
- PIPE SHALL BE LAID TO HAVE MINIMUM SLOPE OF 0.5% ALL HIGH POINTS SHALL HAVE AN ARV. TWO - 2" ELECTRICAL CONDUITS WITH PULL BOXES, AS REQUIRED. AND EVERY 100', MAXIMUM SPACING, SHALL BE INSTALLED WITH THE TRANSMISSION PIPELINE. SEE SHEETS T-1 THROUGH T-8 AND R-2 FOR ALIGNMENT
- C. WORK SHALL BE SEQUENCED SUCH THAT THE WATER SYSTEM IS FULLY FUNCTIONAL AT ALL TIMES. SHUT-DOWNS FOR PIPELINE CUT-INS SHALL BE SCHEDULED WITH COUNTY STAFF 72 HOURS IN ADVANCE AND SHALL BE AT OFF PEAK HOURS OR AT NIGHT AS AGREED TO BY THE COUNTY STAFF. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR SHUT-DOWNS.
- ALL PIPE CROSSINGS SHALL HAVE A MINIMUM 12" CLEAR UNLESS OTHERWISE APPROVED IN ADVANCE BY THE ENGINEER.
- E. PIPES WITHIN THE WORK AREA SHALL BE CLEARED AND THE ENDS OF THE PIPE
- EXISTING PIPE MAY BE ASBESTOS CEMENT (A.C.) AND SHALL BE PROPERLY WORKED WITH, HANDLED AND DISPOSED OF. ALL COSTS FOR WORKING WITH EXISTING A.C. PIPE SHALL BE INCLUDED IN THE CONTRACT.
- G. ALL DETAILS APPLY WHETHER SPECIFICALLY CALLED OUT OR NOT.
- H. PROTECT TREE ROOTS DURING EXCAVATION AND TRENCHING OF ALL TREES, EXCEPT THOSE TREES CALLED FOR TO BE REMOVED.
- AT LOCATIONS WHERE PIPE SLEEVES ARE REQUIRED, CONTRACTOR SHALL CONFIRM THE SIZE OF THE CARRIER PIPING AND SPACE REQUIREMENTS OF JOINT RESTRAINTS PRIOR TO ORDERING STEEL SLEEVES. SLEEVES SHALL BE 1/4" THICK MINIMUM AND SHALL BE FUSION EPOXY LINED AND COATED
- THE TOPOGRAPHIC MAPPING WAS FLOWN IN 1993, APPROXIMATELY 16 YEARS AGO. TREES HAVE MATURED AND CHANGES MADE SINCE THE TIME THE FLIGHT WAS MADE. IT IS ANTICIPATED THAT FIELD ADJUSTMENTS WILL BE REQUIRED. THE CONTRACTOR SHALL SURVEY THE ALIGNMENT, AND STAKE IT TO IDENTIFY [POTENTIAL CONFLICTS AND CONFIRM ALIGNMENT PRIOR TO ORDERING ANY MATERIALS. ANY CONFLICTS IDENTIFIED BY THE STAKING WILL BE REVIEWED. WITH THE ENGINEER AND ADJUSTMENTS TO THE ALIGNMENT AGREED TO. THESE ADJUSTMENTS WILL BE REDLINED ON A SET OF PLANS BY THE CONTRACTOR AND CONFIRMED BY THE ENGINEER. ANY CHANGES IN COST SHALL BE NOTED BY THE CONTRACTOR IMMEDIATELY AND AGREED TO BY THE ENGINEER PRIOR TO ORDERING ANY MATERIALS. COST FOR RESTAKING SHALL BE INCLUDED IN THE
- MUCH OF THE EXISTING PAVEMENT IS IN MARGINAL CONDITION. AT LOCATIONS THAT THE EDGE OF PIPE TRENCH IS 3' OR LESS FROM THE EDGE OF PAVEMENT THE CONTRACTOR SHALL REPLACE THE STRIP OF EXISTING PAVEMENT. PORTIONS BROKEN OFF DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. TRENCH REPLACEMENT FINISH PAVEMENT SHALL JOIN EXISTING PAVEMENT AT A CLEAN SAW CUT LINE. ADDITIONAL SAW CUTTING AND PAVEMENT REPLACEMENT IS ANTICIPATED AND WILL BE REQUIRED TO BE PARALLEL AND PERPENDICULAR TO EDGE OF EXISTING PAVEMENT OR ROAD CENTERLINE AS DETERMINED BY THE ENGINEER. CONFORMING TO BROKEN PAVEMENT EDGES OR SKEWED CONFORM SAW CUT LINES WILL NOT BE
- POTHOLE ALL CONNECTION POINTS TO EXISTING PORTIONS OF THE WATER SYSTEM. THESE LOCATIONS ARE NOT SHOWN WITH THE POTHOLE SYMBOL USED FOR PROPOSED WATERLINE CROSSING WITH EXISTING SUB-STRUCTURE OR

THIS DRAWING IS PROVIDED IN AN ELECTRONIC FORMAT AS A COURTESY FREQUESTED BY THE USER. THE DELAYERY OF THE ELECTRONIC FILE DOES NOT CONSTITUTE THE DELAYERY OF QUE PROFESSIONAL WORK PRODUCT. THE SIGNED HAVE COPY PREPARED FOR THE PROJECT CONSTITUTES GUR. PROFESSIONAL WORK PRODUCT AND THE HAVE COPY SUST BE REFERRED TO FOR THE CORRECT DESIGN INVORMATION. WE SHALL NOT BE RESPONSIBLE. O'ON THE CONTROL MOUSENING TO THE ELECTRONIC FILE, OR FOR ANY PRODUCE OF THE ELECTRONIC FILE, OR FOR ANY PRODUCE REVED FROM THE ELECTRONIC FILE WHICH ARE NOT REVIEWED, SIGNED RALED BY FLOWERS & ASSOCIATES, INC. (FEAL USER AGREES TO MODE NO HOLD HARMLESS FEA FOR ALL COSTS AND DAMAGES IF USED.

## FLOWERS & ASSOCIATES, INC.

CIVIL ENGINEERS one (805) 966-2224

DATE: 5/20/09



COUNTY OF SANTA BARBARA **COUNTY PARKS** 

610 Mission Canyon Road Santa Barbara, CA 93105

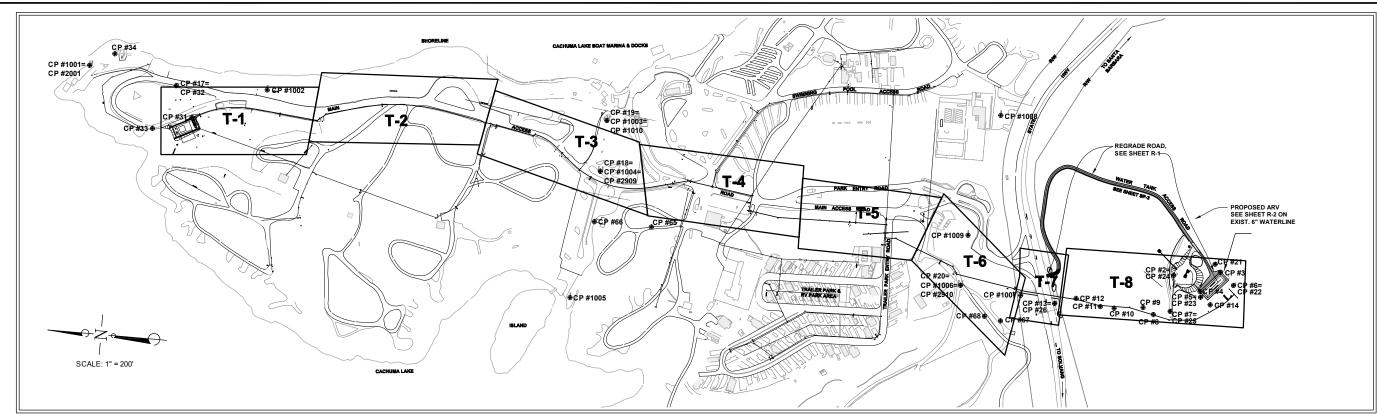
Design: ELF | Check: BS Drawn: SS roject Engineer: Date:

# **GENERAL PROJECT INFORMATION**

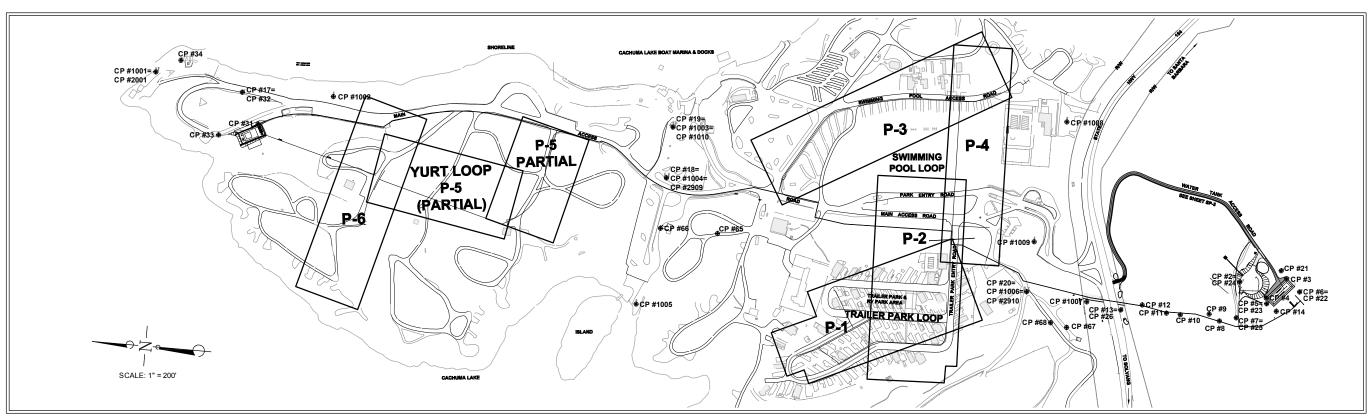
LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS COUNTY OF SANTA BARBARA, CALIFORNIA

PLOTTED: May 20, 2009 - 3:37pm

**G-2** 



TRANSMISSION PIPELINE PLAN AND PROFILE SHEET LAYOUT (T-SHEETS)



FIRE SYSTEM / LOOPING PLAN AND PROFILE SHEET LAYOUT (P-SHEETS)

FLOWERS & ASSOCIATES, INC. No. 33000 Exp.6-30-10 DESCRIPTION DATE: 5/20/09 REVISIONS



COUNTY OF SANTA BARBARA **COUNTY PARKS** 610 Mission Canyon Road Santa Barbara, CA 93105

Design: ELF	Check: BS	
Orawn: SS		
Project Engin		
)atai		

PLOTTED: May 20, 2009 - 3:38pm

**OVERALL SITE PLAN &** REFERENCE TO DRAWINGS

LAKE CACHUMA WATER STORAGE AND DISTRIBUTION SYSTEM IMPROVEMENTS COUNTY OF SANTA BARBARA, CALIFORNIA

**G-3** 

W.O. 0352

PLOTTED: May 20, 2009 - 3:36pm